

### Abstract of the Disclosure

A device for acquiring the position co-ordinates of a source of mechanical waves optionally generated by impacting the surface of a plate (PLQ) of finite dimensions. A set of acoustic sensors (PZT00 to PZT11) each formed by a pair of piezoelectric transducers (PZTa, PZTb) face each other on either side of the plate, the device includes a processor for determining the co-ordinates of the source by analyzing the difference in propagation time of the acoustic waves generated by the source to the different sensors. The processor combined with each sensor (PZT00 to PZT11) a respective electronic circuit includes a digitized mounted in cascade for digitizing the amplified signal around a predetermined frequency, associated with a mechanism for limiting the digitization to a time window starting before the acoustic waves reach a sensor and ending when the acoustic waves have reached said sensor.